

**SINTERED SILICON NITRIDE**

**ABSTRACT OF THE DISCLOSURE**

- 5   **[0046]**       Sintered silicon nitride products comprising predominantly  $\beta$ -silicon nitride grains in combination with from about 0.1 to 30 mole % silicon carbide, and grain boundary secondary phases of scandium oxide and scandium disilicate. Such products have high fracture toughness, resistance to recession, and resistance to oxidation at temperatures of at least 1500°C.
- 10   Methods for preparing sintered silicon nitride products are also disclosed.